DIGITUS® KVM Switch Modules

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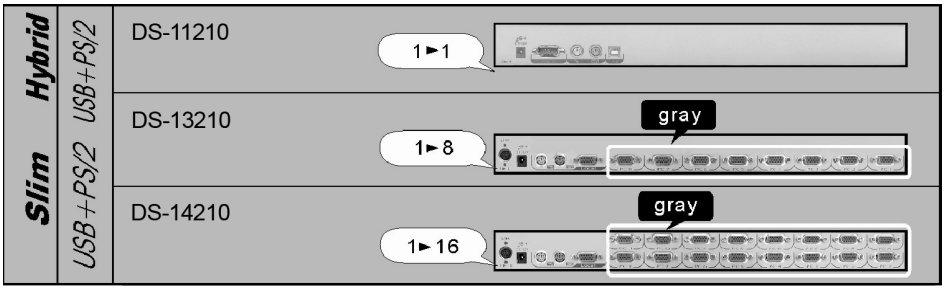
Please read this manual thoroughly and follow the **Installation** procedures to prevent any damage to the DIGITUS® or any connecting device.

FC CE VCI **RoHS**



Note:

When connected to the LCD Console Drawer, the console port of the KVM Switch Module is not applicable.

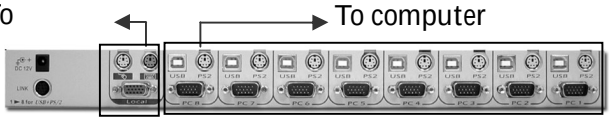
---------- Introduction

Overview

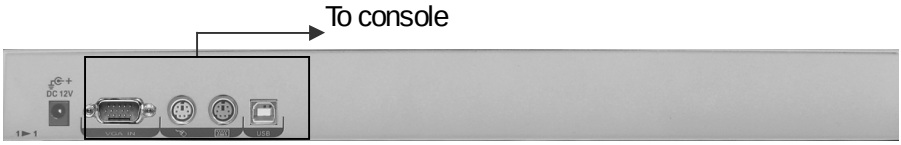
The combination of DIGITUS® Console Drawer and DIGITUS® KVM Switch Module offers the latest and the most efficient way of controlling server rooms and multiple computers. Many DIGITUS® KVM Switch Modules are available to control from 8 to 136 servers by the DIGITUS® Console Drawer or another set of console 100ft (30m) away; it is the ultimate tool for server management.

There are many types of DIGITUS® KVM Switch Modules with different computer interfaces available:

- ***Hybrid "PS/2 + USB" Modules*** with PS/2 keyboard, PS/2 mouse, USB (keyboard + mouse) and monitor (HDB15), as shown in Figures below.

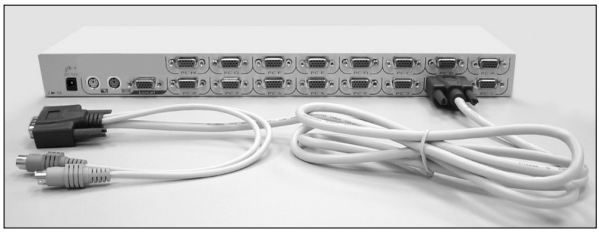


PS/2 and USB Connection

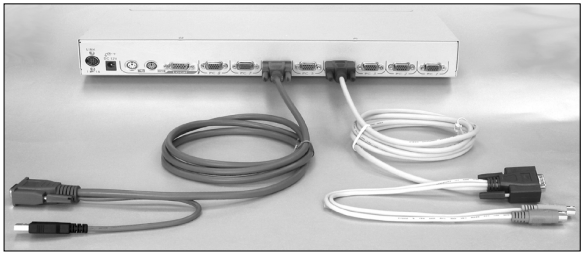


DS-11210 PS/2 and USB Connection

- ***Slim PS/2 Modules*** with special 1-to-3 connectors for PS/2 keyboard, mouse and monitor (HDB15).



(IMM) Slim PS/2 1-to-3 Connectors and Cables



(IUM) Slim USB+PS/2, 1-to-2 / 1-to-3 Connectors and Cables

Module	Product	For Computer Interface
Hybrid	DS-11210	USB + PS/2
Slim	DS-13210, DS-14210	USB + PS/2

On-Screen Display (OSD) Menu

With an DIGITUS® KVM Switch Module, you can name your computers, switch to a computer from a list, configure settings with easy-to-use menus, view the name of the selected computer on-screen with programmable time interval. The OSD menu displays the system status throughout operation.

High Video Quality

DIGITUS®'s LCD panel supports VGA resolution up to 1024x768 for 15” LCD panel or 1280 x 1024 for 17” and 19” LCD panel without any degradation. The advanced VGA circuit design guarantees smooth and flicker-free switching from one computer to the other with VGA cable length up to 100ft (30 meters)*.

*Tested with high-quality UL2919-rated, low-loss and shielded cables.

Package Content

KVM Switch x 1
Bracket x 2 (For 8/16-port modules only)
User's Manual x 1
Screws x 1 pack

* ***Power Adapter is come with the LCD Console Drawer Packaging, NOT with this packaging.***

General Features

- Cascade configuration expands system capability
- Auto-scan automatically selects computers sequentially
- Supports most of mice such as Microsoft IntelliMouse (Pro), Explorer, Optical, and so on
- Assign computers with unique and meaningful names
- Identify and select computers by the names
- Programmable scan filters unused computers
- Store system settings and name entries to non-volatile memory
- Password security locks computer from unauthorized access
- Gain complete control with easy-to-use OSD interface
- Hotkey functions allow easy computer access
- Keyboard states automatically saved and restored when switching computers
- Operating system independent, transparent to all applications
- Plug and play system configuration
- Keyboard and mouse can be hot plugged at any time
- DDC2B compatible
- Supports optional multimedia Module for microphones and stereo speakers
- Cascadable to all 19” rack mountable PS/2 KVM Switches
- (Optional) The **Built-In Power** is available for certain modules.
- Manage multiple computers from two locations (For multi-access modules only)

Features for Hybrid "USB + PS/2" KVM Switch Module DS-11210

- Supports computers with either PS/2 or USB interface
- Supports Sun servers, HP servers and Mac

Features for Slim "USB + PS/2" KVM Switch Modules DS-13210, DS-14210

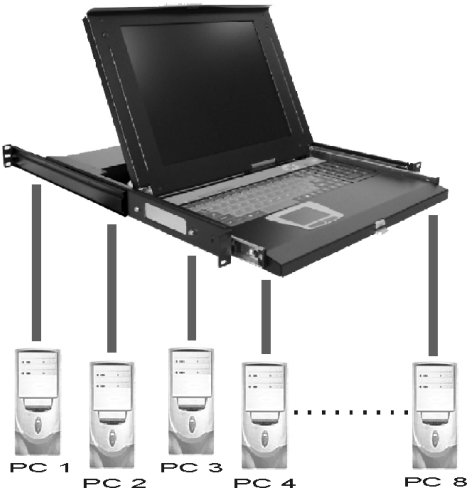
- Unique loose-free, 1-to-3 / 1-to-2 cables save spaces, ideal for computers with PS/2 or USB interfaces, such as PC, USB-Sun and USB-Mac.

Configurations

DIGITUS® KVM Switch Modules are available for 8, and 16 ports with various interfaces. For the applications of requiring many computers, DIGITUS® KVM Switch Modules can be cascaded in a master/slave configuration.

Single DIGITUS® KVM Switch Module Configuration

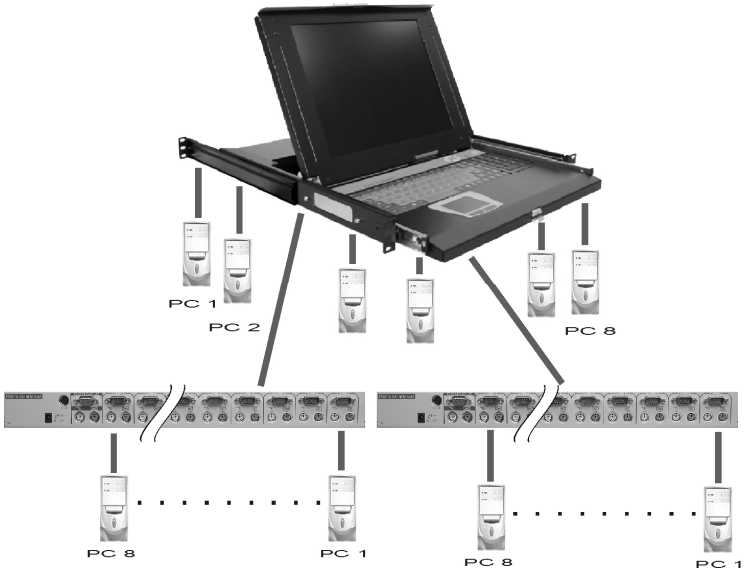
Combined with an DIGITUS® Console, the DIGITUS® KVM Switch Module can be connected to multiple computers with keyboard, mouse, and monitor cables as shown below.



A Single DIGITUS® KVM Switch Module Configuration

DIGITUS® KVM Switch Module in cascade (Master/Slave) Configuration

You can connect a second level of one or more DIGITUS® KVM Switch Modules to a *Master* unit. Cascade configuration expands system ability, allowing you to select computers connected to the *Master* or *Slaves*. There is only one *Master* that connects to the DIGITUS® Console directly operated by a user. Once connected, DIGITUS® KVM Switch Modules automatically configure themselves to either *Master* or *Slave*. *Slaves* of different DIGITUS® KVM Switch Modules can be mixed in cascade configuration.



A Cascade DIGITUS® Configuration

Throughout this manual, *Master* is an DIGITUS® KVM Switch Module that connects directly to the drawer. And, *Slave* is an DIGITUS® KVM Switch Module that has its **CONSOLE** port connected to a *Master's* "**PC** x" port. *Slave* only exists in cascade configuration.

Cables

Using the following cables to connect computers with PS/2 interface.

1-to-3 cable for PS/2 Computers

3-to-3 cable for PS/2 Computers

Using the following cables to connect computers with USB interface.

2-to-2 cable for USB Computers

1-to-2 cable for USB Computers

Device Connection

● *Hybrid "PS/2 + USB" Module*

I. DS-11210

You can only connect to a computer using either PS/2 or USB port.

***-- To a USB Computer**:* Connect the standard VGA cable and a USB A-B cable to the computer and DS-11210 as shown in Figure A. The computer can be a USB-ready PC, Sun, HP server, or a Mac.

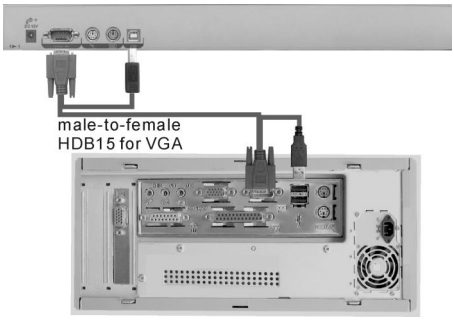


Figure A: DS-11210 with USB Computer Connection Diagram

■ ***To a PS/2 Computer**:* Connect the standard VGA cable and two mini-DIN6 male-to-male cables to the computer and DS-11210, see Figure B. There are two mini-DIN6 female connectors marked with keyboard and mouse, be sure not to swap the connections.

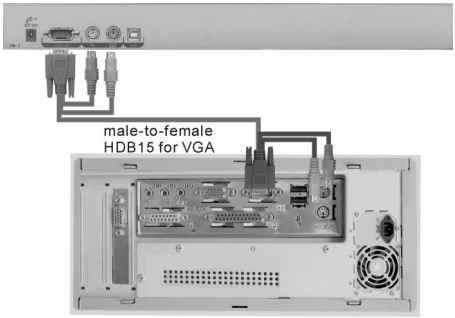


Figure B: DS-11210 with PS/2 Computer Connection Diagram

***-- To a Laptop Computer**:* In most cases, all you need is one VGA cable and one USB A-B connected between the DS-11210 and your laptop; however, some laptop computers do not follow industry standard, please check your laptop user's manual for details.

-- To a KVM Switch: with cascading with a KVM switch, the DS-11210 can control up to 16 computers. The connection is exactly the same as Figure A or Figure B shown, the only difference is connect to the "CONSOLE PORT" (could be "PS/2" or "USB" interface) of KVM switch instead of computer.

NOTE: *PLEASE CHOOSE* ***EITHER*** *"PS/2"* ***OR*** *"USB" TO CONNECT BEFORE TURNING ON YOUR COMPUTER.*

- ***Slim Modules DS-13210, DS-14210***

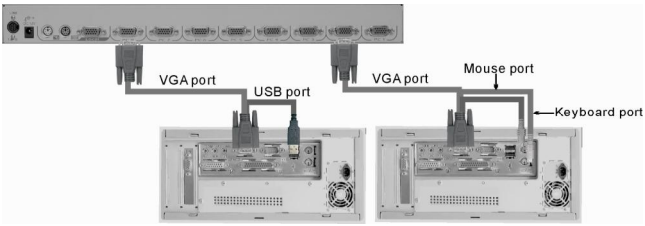
Use only the special cables as shown below.

1-to-3 Cable
For PS/2 Computers
DS-1911x

1-to-2 Cable
For USB Computers
DS-1921x

Connection from a Slim DIGITUS® KVM Switch Module to a PS/2 computer or a USB computer is shown below.

(For IUM- modules only)



Connections for the Special Cables

A Module as a Slave or a Stand-alone KVM Switch

A slave DIGITUS® KVM Switch Module (see Cascade Configuration chapter) may be mounted to the rear vertical poles inside a rack cabinet by the rear brackets with connectors to computers facing rear, as shown below.

Slave DIGITUS® KVM Switch Module and Rear Bracket Attachment

*The connectors (keyboard and mouse) at the **Local** port on the rear of the KVM Module are not applicable when the Module is connected to the TFT LCD drawer by the C-36 connector. When the C-36 connector is not connected to the TFT LCD drawer, the DIGITUS® KVM Switch Module acts as a rear-mount stand-alone KVM Switch Module. The VGA ports at the **Local** and **Remote** can be connected to external VGA monitors at any time.*

Initial Power-Up

Make sure all computers and DIGITUS® KVM Switch Modules are powered down during the installation. You must power up the Master DIGITUS® before turning on any other devices.

- *For single DIGITUS® KVM Switch Module:*
  1) Apply the proper power to the *Master*.
  2) Turn on computers.
- *For cascaded DIGITUS® KVM Switch Module:*
  1) Apply the proper power to the *Master*.
  2) Apply the proper power to all *Slaves*.
  3) Turn on computers.

***Note:** You may hot plug additional powered-down computer or a slave DIGITUS® KVM Switch Module without turning any existing DIGITUS® or computer off after initial power up.*

---------- Operation

Push-Buttons

A computer may be selected by pressing the push button directly, by issuing hotkey commands or by activating the OSD window. The indicator changes to reflect the computer port selected (red). The indicator flashes red when it is in either *Auto Scan* or *Manual Scan* mode.

Note: *For 16-port Modules:* ***1*** *~* ***8*** *represent the lower 8 ports and* ***A*** *~* ***H*** *for the higher 8 ports. Push the same button twice for higher 8 ports, for example, push button 1 twice for port* ***A****, and so forth. OSD menu and hotkeys are available for computer selection.*

- **K/M RESET**

K/M RESET solves most problems developed by keyboard, mouse, device replacement, or change of configuration. Press down both the front-panel number **1** and **2** push-buttons for 2 seconds to re-configure the whole system without turning either the DIGITUS® KVM Switch Module or any computer off.

- **AUTO SCAN**

DIGITUS® KVM Switch Module provides an easy to use feature to start *Auto Scan*ning. You can press down both the front-panel number **7** and **8** buttons for 2 seconds to start Auto Scanning. For 4-port modules, press number **3** and **4** instead.

OSD (On-Screen-Display) Operation

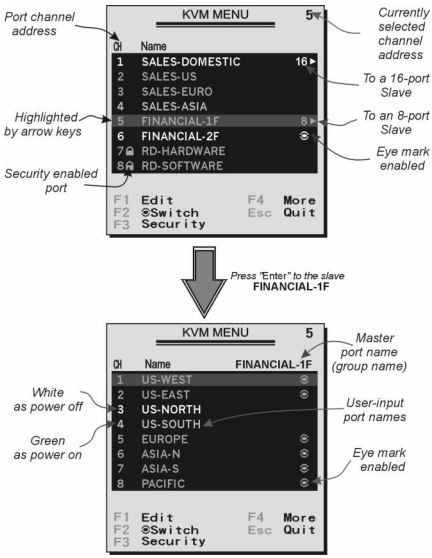


Figure C: OSD Screen Illustration
*Only Hybrid Module offers **F5**, see Function key* **F5**

By hitting the left **Ctrl** key twice within two seconds, you may see the '**Hotkey Menu**' if it is enabled (an OSD option). Or, by hitting the left **Ctrl** key three times within two seconds, you will see a '**KVM MENU**' screen showing a list of the computers with corresponding port numbers, names and status, see Figure C.

The port number of the currently selected computer is displayed in red, same as the front indicator, at the right corner of the OSD menu.

The color of a device name is green if it has power and is ready for operation, or the color is white as it has no power. OSD menu updates the color when it is activated. Pressing the **PageUp** and **PageDown** keys to view 8 other computers.
Use the " ↑ ", " ↓ ", " **1** " ~ " **8** " or " **A** " ~ " **H** " to highlight a computer and the **ENTER** key to select it. Or, you may press **ESC** to exit OSD and remove the OSD menu from the display; the status window returns to the display and indicates the currently selected computer or operating status.

A triangle mark (▸) to the right of a name indicates the port is cascaded to a *Slave*;

the number at the left of the triangle mark shows the number of ports the *Slave* has, i.e. **8** ▸ for an 8-port Switch. **ENTER** key brings you one level down and another screen pops up listing the names of the computers on that *Slave*. The name of the *Slave* will be shown at the upper right corner of the OSD menu. It is useful to group computers and still be able to see the group name.

An eye mark (👁) to the right of a name indicating the computer is selected to be monitored in Scan mode. In OSD, this mark can be switched on or off by function key **F2**.

Press **ESC** key to exit OSD and to return to the selected computer; the computer name is also shown on the screen.

● Function key **F1** : To edit name entry of a computer or a *Slave* with up to 14 characters. First, highlight a port then press <F1> followed by name entry. Valid characters are 'A'~'Z', '0'~'9' and the dash character. Lowercase letters are converted to uppercase ones. Press **BACKSPACE** to delete a letter one at a time. Non-volatile memory stores all name entries until you change, even if the unit is powered down.

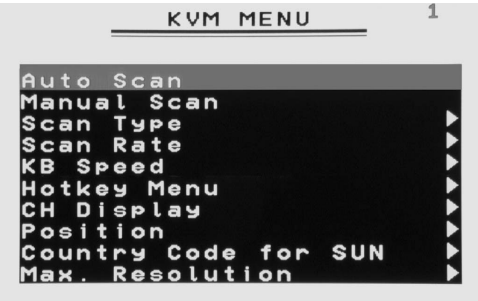
● Function key **F2** : To switch the eye mark (👁) of a computer on or off. First, use the ↑ and ↓ arrow keys to highlight it, and then press **F2** to switch its eye mark on or off. If *Scan Type* is 'Ready **PC +**👁', only the power-on and eye mark selected computers will be displayed sequentially in Scan mode.

● Function key **F3** : To lock a computer from unauthorized access. To lock a device, highlight it then press **F3**. Now, enter up to 4 characters ('A'~'Z', '0'~'9, '-') followed by **ENTER** as new password. A Security-enabled device is marked with a lock (🔒) following its port number. To permanently disable the security function from a locked device, highlight it, press **F3** then enter the password.

If you want to access the locked device temporarily, simply highlight it and press **ENTER**, the OSD will ask you for the password. After entering the correct password, you are allowed to use the device. This device is automatically re-locked once you switch to another port. During Scan mode, OSD skips the password-protected devices.

● Function key **F4** : More functions are available by hitting **F4**. A new screen pops up displaying more functions as described below. Most of them are

marked with a triangle (▸) indicating there are options to choose from. Using the " ↑ " and " ↓ " arrow keys, select the functions and press **ENTER**. Available options will be shown in the middle of the screen. Again, using the " ↑ " and " ↓ " arrow keys to view options then press **ENTER** to select it. You can press **ESC** to exit at any time.



■ *Auto Scan*

In this mode, the DIGITUS® automatically switches from one power-on computer to the next sequentially in a fixed interval. During *Auto Scan* mode, the OSD displays the name of the selected computer. When *Auto Scan* detects any keyboard or mouse activity, it suspends the scanning till activity stops; it then resumes with the next computer in sequence. To abort the *Auto Scan* mode, press the left **Ctrl** twice, or, press any front button. *Scan Type* and *Scan Rate* set the scan pattern. *Scan Type* (**F4** :More\Scan Type) determines if scanned computers must also be eye mark selected. *Scan Rate* (**F4** :More\Scan Rate) sets the display interval when a computer is selected before selecting the next one.

■ *Manual Scan*

Scan through power-on computers one by one by keyboard control. Type (**F4** :More\Scan Type) determines if scanned computers must also be eye mark selected. Press the up arrow key " ↑ " to select the previous computer and the down arrow key " ↓ " to select the next computer. Press any other key to abort the Manual Scan mode.

■ *Audio Stick*

An optional multimedia Module can be **LINK**ed to the back of each DIGITUS® KVM Switch Module for selecting microphone and stereo speaker signals. There are two options for *Audio Stick*: **ON** and **Off**. When set to '**On**', audio selection follows computer selection. When set to

'**Off**', audio selection stops following computer selection. It is useful if you want to listen to a particular computer's audio signal while operating other computers. The non-volatile memory stores the *Audio Stick* setting.

■ *Scan Type*

Ready PC +👁: In Scan mode, scan through power-on and eye mark selected computers.

Ready PC: In Scan mode, scan through power-on computers.

👁 **Only**: In Scan mode, scan through any 👁 selected computer regardless of computer power status.

The non-volatile memory stores the *Scan Type* setting.

■ *Scan Rate*

Sets the duration of a computer displayed in *Auto Scan* mode. The options are **3 seconds, 8 seconds, 15 seconds, and 30 seconds**. The non-volatile memory stores the *Scan Rate* setting.

■ *PS/2 Keyboard Speed*

DIGITUS® offers keyboard typematic setting that overrides the similar settings in BIOS and in Windows. Available speed options are **Low**, **Middle**, **Fast,** and **Faster** as 10, 15, 20, and 30 characters/sec respectively. The non-volatile memory stores the Keyboard Speed setting.

■ *Hotkey Menu*

When you hit the left **Ctrl** key twice within two seconds, the "Hotkey Menu" appears displaying a list of hotkey commands if the option is **On**. The 'Hotkey Menu' can be turned **Off** if you prefer not to see it when the left **Ctrl** key is hit twice. The non-volatile memory stores the Hotkey Menu setting.

■ *CH Display*

Auto Off: After you select a computer, the port number and name of the computer will appear on the screen for 3 seconds then disappear automatically. **Always On**: The port number and name of a selected computer and/or OSD status displayed on the screen all the time. The non-volatile memory stores the CH Display setting.

■ *Position*

The position of the selected computer name and/or OSD status is displayed on screen during the operation. The actual display position shifts due to the different VGA resolution, the higher the resolution the higher the display position. The non-volatile memory stores the Position setting.

Upper Left, **Upper Right**,
Lower Left, **Lower Right**.
Middle.

■ *Country Code for Sun* <***For Slim*** *USB+PS/2 and* ***Hybrid*** *USB+PS/2 Modules* ***only***>

Sun keyboards of different languages have different layouts. The DIGITUS® KVM Switch Module is able to emulate a Sun keyboard for a specific language type (or country: Arabic, Belgian … US, Yugoslavia). Select the proper country code that matches ***ALL*** of your Sun computers.

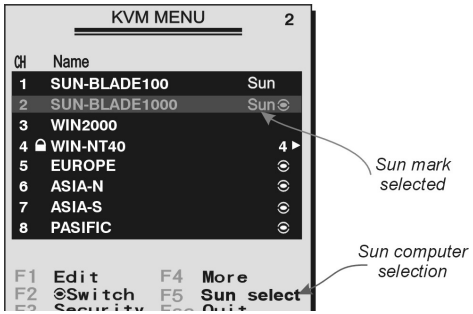
■ *Max. Resolution* <***For Slim*** *USB+PS/2 and* ***Hybrid*** *USB+PS/2 Modules* ***only***>

You can adjust the monitor resolution under this sub-menu. There are the following selections: 1024 x 768, 1280 x 1024, 1360 x 768 and "DDC2B Disable". Please check your PC's Maximum Resolution before you adjust it.

Note: The 16:9 LCD Panel and 16:10 LCD Panel are not applied

● Function key **F5** : <***For Slim*** *USB+PS/2 and* ***Hybrid*** *USB+PS/2 Modules* ***only***>

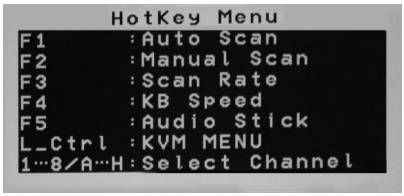
To switch the **Sun** mark of a port on or off indicating the computer is a Sun server as shown in figure below. Sun servers have more keys on the keyboard than a PC. When a **Sun-**marked port is selected, the KVM Switch starts to translate the keys from a PS/2 keyboard to a Sun keyboard. See *Sun Keyboard Mapping* for details.



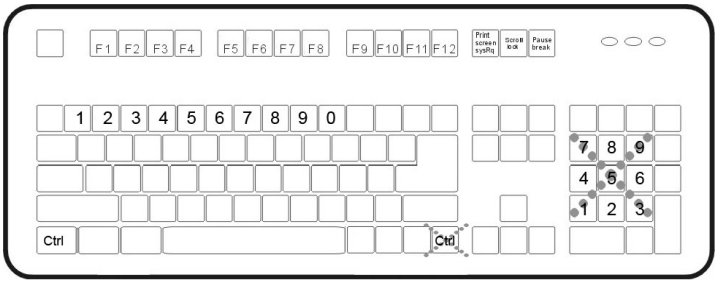
- **ESC** : To exit the OSD, press the **ESC** key.

Hotkey commands

Hotkey command is a short keyboard sequence to select a computer, to activate computer scan, etc. DIGITUS® interprets keystrokes for hotkeys all the time. A hotkey sequence starts with two left **Ctrl** keystrokes followed by one or two more keystrokes. A built-in buzzer generates a high-pitch beep for correct hotkey command; otherwise, one low-pitch beep for error and the bad key sequence will not be forwarded to the selected computer.



The short form hotkey menu can be turned on as an OSD function (**F4** : more\Hotkey Menu) every time the left **Ctrl** key is pressed twice.



L-Ctrl: is the **Ctrl** key located at the left side of the keyboard.

1~8/A~H: are the number keys '1' ~ '8' at the upper row of the keyboard and character keys 'A' ~ 'H' case insensitive. *Do not use the keypad at the right of the keyboard.*

■ To select a computer by hotkey command, you must know its port number, which is determined by the DIGITUS® KVM Switch Module connection. For a computer connected to a *Master*, its port is represented by the PC port label (**1**~**8** or **A**~**H**). For a computer connected to a *Slave*, two characters represent its port. The first character is the port number of the *Master* unit (**1**~**8**) and the second one is the port number of the *Slave* (**1**~**8** or **A**~**H**). Please note that only *Master's* '**PC 1**' ~'**PC 8**' ports can be connected to a *Slave*.

Left **Ctrl** + *left* **Ctrl** + **7**

Selects a computer connected to port 7 of the *Master*.

Left **Ctrl** + *left* **Ctrl** + **6** + **C**

Selects a computer connected to port C of a *Slave* connected to port 6 of the *Master*.

■ To start *Auto Scan*, automatically scan power-on computers one by one at a fixed interval:

Left **Ctrl** + *left* **Ctrl** + **F1**

When *Auto Scan* detects any keyboard or mouse activity, it suspends the scanning till activity stops; it then resumes with the next computer in sequence. The length of the *Auto Scan* interval (*Scan Rate)* is adjustable, see below. To abort the *Auto Scan* mode, press the left **Ctrl** key twice.

Note: Scan Type** determines whether an eye-marked computer is to be displayed during **Auto Scan.

■ *Manual Scan* enables you to manually switch back and forth between power-on computers.

Left **Ctrl** + *left* **Ctrl** + **F2**

Press " ↑ " or " ↓ " to select the previous or the next computer in sequence. And, press any other key to abort the *Manual Scan*.

Note: Scan Type** determines whether an eye-marked computer is to be displayed during **Auto Scan.

■ To adjust *Scan Rate,* setting the duration before switching to the next computer in *Auto Scan*:

Left **Ctrl** + *left* **Ctrl** + **F3**

The DIGITUS® sends one to four beeps indicating scan interval of ***3***, ***8***, ***15,*** and ***30*** seconds respectively.

■ To adjust keyboard typematic rate (characters/sec), this setting over-rides that of

BIOS and any operating system:

Left **Ctrl** + *left* **Ctrl** + **F4**

The DIGITUS® generates 1 to 4 beeps corresponding to ***10***, ***15***, ***20,*** and ***30*** characters/sec respectively.

■ *Audio Stick*

An optional multimedia Module can be LINKed to the back of each DIGITUS® for selecting microphone and stereo speaker signals. There are two options for *Audio Stick*: **ON** and **Off**. When set to '**On**', audio selection follows computer selection. When set to '**Off**', audio selection stops following computer selection. It is useful if you want to listen to a particular computer's audio signal while operating other computers.

Left **Ctrl** + *left* **Ctrl** + **F5**

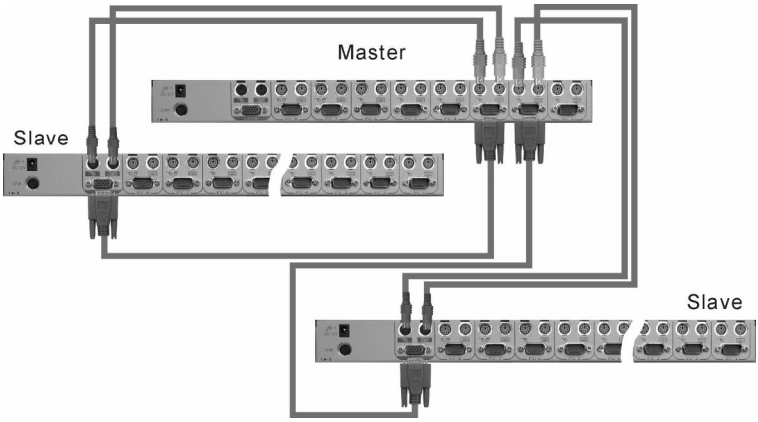
The DIGITUS® generates 1 or 2 beeps corresponding to ***On*** and ***Off*** respectively.

---------- Cascade Configuration

Connection

Before connecting a device (a computer or a Slave KVM Switch Module) to the Master DIGITUS® KVM Switch Module under power, you must turn off the device.
Note: *The Master must have equal or more '**PC x**' ports than that of the Slave, i.e., if DS-13210 is the master, DS-13210 can be a Slave, but not the DS-14210.*

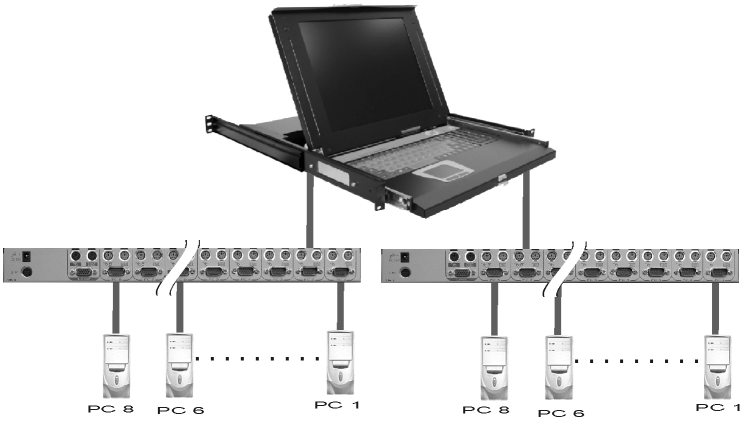
The ports labeled "**PC 1**"~"**PC 8**" can be connected to either a computer or a *Slave*'s **LOCAL** (or **CONSOLE)** port, as shown below. The ports "**PC A**"~"**PC H**" can only be connected to computers.



Slave Console Connection

Note: *Only Master's PS/2 **PC** ports (not USB ports) can be connected to a Slave's **LOCAL** (or **CONSOLE**) port for cascade application.*

The maximum number of computers controlled by a master/slave configuration with all 8-port units is 64 -- with 8 *Slaves* and each *Slave* connects to 8 computers, see figure below.



Cascaded 8-Port DIGITUS® KVM Switch Modules

For OSD menu:

After connection completes, you should re-activate the OSD menu to check if the *Master* recognizes the *Slaves*. A triangle mark (▸) is placed to the right of the channel name indicating the port is connected to a *Slave not* a computer. A number to the left of the triangle mark indicates the *Slave* Module, i.e. **8** ▸ for an 8-port Switch Module.

Change Configuration while Running

A device (a computer or a KVM Switch Module) at any '**PC** x' port can be changed at any time after initial power-up. If you change any one of the "**PC 1**" to "**PC 8**" ports connection from a computer to a *Slave* or vice versa, or replace the devices of a port; the OSD will update this change the next time it is activated.

Note: *Any new device must be turned off before it is connected to the Master.*

---------- Sun/Mac Keyboard Mapping

The KVM modules emulate a Sun's keyboard and mouse when a computer is marked with a **Sun** in OSD menu by Function key **F5** . A Sun keyboard has more keys than a standard PS/2 one. These extra keys are simulated by tapping the lower-right **Ctrl** followed by one of the function keys on a PS/2 keyboard (i.e. combo key). For instance, tap the lower-right **Ctrl** key, then tap the function key **F7** to activate **Open** for a Sun computer.

From PS/2 keyboard	Map to Sun keyboard	Map to Mac keyboard
right - **Ctrl** **1**		
right - **Ctrl** **2**		
right - **Ctrl** **3**		
right - **Ctrl** **4**	note	power
right - **Ctrl** **F1**	**Stop**	
right - **Ctrl** **F2**	**Again**	
right - **Ctrl** **F3**	**Props**	
right - **Ctrl** **F4**	**Undo**	
right - **Ctrl** **F5**	**Front**	
right - **Ctrl** **F6**	**Copy**	
right - **Ctrl** **F7**	**Open**	
right - **Ctrl** **F8**	**Paste**	
right - **Ctrl** **F9**	**Find**	
right - **Ctrl** **F10**	**Cut**	
Print Screen		**F13**
Scroll Lock		**F14**
Pause Break		**F15**
right - **Ctrl** **H**	**Help**	
right -	*right* - ♦	*right* -
left -	*left* - ♦	*left* -
	Compose	
right - **Alt**	**Alt Graph**	*right* - **Option**
left - **Alt**	**Alt**	*left* - **Option**

Note: *For Sun: The switch Module does not support **LowPower** option under **Power Off Select** after the command **right** –* **Ctrl** **4** **.**

** For Japanese keyboard: The leading key for the Combo Key is replaced by.*

半角 / 全角

Hybrid Modules

Specifications		Hybrid DS-11210
User port number		N/A
Computer port number		1
Cascade control PC number		Up to 16*
Cable type		2-to-2 / 3-to-3 Cable
Applicable to computer		PS/2 PC, Sun**, Mac
On-screen display (OSD)		N/A
Push button control		N/A
Hot plug-and-play		Yes
Rack-mounted		Yes, 19" industry-standard
Automatic scan interval		N/A
Programmable scan pattern		N/A
Cable length (Max)		30M (100ft) at CONSOLE 30M (100ft) at PC ports for PS/2 5M at PC ports for USB
VGA resolution		1920 x 1440, DDC2B
TFT LCD KVM drawer connector		C-36
Computer connector	Keyboard ** mouse ** monitor	PS/2 x 2, USB x 1 HDB15 male x 1
Console connector	Keyboard mouse monitor	N/A N/A N/A
H x W x D (mm) (in.)		40x404x114 1.6x15.9x4.5
Rear-mount brackets		1U-height, included
Size		1U
Power supply (min)		9 ~ 12V DC, 500mA ***

***** Maximum control when cascaded with modules of the same type.

****** For USB-ready Sun computers.

******* Without connecting the LCD console drawer, the power supply needs not less than 500mA. With connecting the LCD console drawer, the power supply will be between 3.0A and 4.2A with the voltage of 12V DC based on the size of LCD panel, for example, the 15" LCD console drawer with the module will need the power supply not less than 3.0A.

Slim Modules

Specifications		Slim USB+PS/2	
		DS-13210	DS-14210
User port number		1	1
Computer port number		8	16
Cascade control PC number		Up to 64*	Up to 136*
Cable type		1-to-3 / 1-to-2 Cable	
Applicable to computer		PS/2 PC, Sun**, Mac	
On-screen display (OSD)		Yes	
Push button control		8, available when connected to a KVM drawer (8/16 Port) 4, available when connected to a KVM drawer (4 Port)	
Hot plug-and-play		Yes	
Hotkey control		Yes	
Rack-mounted		Yes, 19" industry-standard	
Automatic scan interval		3, 8, 15, 30 seconds	
Programmable scan pattern		3 options available	
Cable length (Max)		30M (100ft) at CONSOLE 30M (100ft) at PC ports for PS/2 5M at PC ports for USB	
VGA resolution		1920 x 1440, DDC2B	
TFT LCD KVM drawer connector		C-36	
Computer connector	Keyboard ** Mouse ** Monitor	HDB15 female x 8 (gray)	HDB15 female x 16 (gray)
Console connector	Keyboard	PS/2	
	Mouse	PS/2	
	Monitor	HDB15 female	
H x W x D (mm) (in.)		40 x 404 x 114 1.6 x 15.9 x 4.5	
Rear-mount brackets		1U-height, included	
Size		1U	
Power supply (min)		9 ~ 12V DC, 500mA ***	

***** Maximum control when cascaded with modules of the same type.

****** For USB-ready Sun computers.

******* Without connecting the LCD console drawer, the power supply needs not less than 500mA. With connecting the LCD console drawer, the power supply will be between 3.0A and 4.2A with the voltage of 12V DC based on the size of LCD panel, for example, the 15" LCD console drawer with the module will need the power supply not less than 3.0A.

Troubleshooting

Ensure that all cables are well seated. Check that keyboard/mouse cables are not swapped. Label and bundle the cables for each computer to avoid confusion when connected to the DIGITUS®.

Symptom	*Possible causes*	*Recommended solutions*
Nothing works.	Bad connection at the C-36 connectors.	Push the assembled drawer and the KVM Module box firmly together leaving only 8mm (5/16 inch) space in between. Be sure they are secured by two screws.
VGA monitor works fine but keyboard and touch pad does not work.	Another keyboard or mouse is connected to the rear side of the KVM Module box (marked with **Local**) when the C-36 connector is connected to the KVM drawer.	If the C-36 connector on the KVM Module box connects to a KVM drawer, its **Local** console should not connect to any keyboard or mouse.
	Connection inside the KVM drawer becomes loose due to vibration.	Verify if the KVM drawer is bad by disconnecting it from the KVM Module box (the C-36 connector is not connected). Connect a keyboard, mouse, and monitor to the **Local** port on the KVM Module box and another computer to any of the **PC** ports and use the KVM Module box as a stand-alone KVM Switch.
The quality of video is bad or the picture is grainy	Video card quality	1. Choose a colorful **Desktop Wallpaper** for the following adjustments. a. Press ⟲ to bring up the OSD menu, select Color, and then select Auto Color. After done the Auto Color job, simple press ⟲ to exit the OSD. b. Press and hold ⟲ to run Auto Tuning for the optimal screen display.
No screen image, or no OSD menu	A power-on computer is not selected.	Turn on a computer and select it by the front push-buttons.
	External power supply is not connected, No power to DIGITUS®.	Apply power to the system via the external power supply. Press the front push buttons to select a computer. A red rectangle, part of the OSD function, should pop up displaying the port number as the system is properly powered. Connect a VGA monitor to the LOCAL port at the rear and check if the VGA signal presents.

Unable to operate USB-ready Sun server.	Incorrect KVM Module.	Use only the hybrid PS/2 + USB KVM Module. Invoke the OSD menu, move the light bar to the port, press **F5** to set the Sun mark on.
Keyboard error on boot.	Loose keyboard connection.	Make sure keyboard cables are Well seated.
Alphabets on the TFT LCD display are blur or have shadows.	Improper resolution settings.	Set the VGA resolution of the computers to 1024 x 768 with "Large Font" for the best performance.
I forget the password.	Bad memory.	Consult the dealer. Memorize the password.
Master/slave does not work.	Improper installation procedures.	Make sure slave's CONSOLE is connected to *Master's* PC 1~ PC 8 port. Only PS/2 ports can be used for cascade connection. Press and hold the **1** and **2** push-buttons to initiate K/M reset. Remove any possible power supply to the slave (unplug all cables), before connecting it to the *Master.*
Keyboard strokes shifted.	The computer was in shifted state when last switched.	Press both SHIFT keys.
The ↑ and ↓ keys do not work in *Manual Scan.*	All PCs are off or only one PC is turned on. Scan mode works for power-on computers only. *Scan type* is eye mark selected but no PC is eye mark selected in OSD.	Turn computers on. Press any other key to abort *Manual Scan* mode. Set proper *Scan type* in OSD and determine which PCs are eye mark selected, do it in OSD.
Auto Scan does not switch PC and DIGITUS® beeps from time to time and red indicator flashes.	All PCs are off or only one PC is turned on. Scan mode works for power-on computers only. *Scan type* is eye mark selected but no power-up PC is eye mark selected in OSD.	Turn on computers. Set proper *Scan Type* in OSD and determine which PCs are eye mark selected, do it in OSD. Press left **Ctrl** key twice to abort *Auto Scan* mode. Press any front button to select a PC, and *Auto Scan* stops.

Double OSD images at cascade configuration.	Improper slave connection procedure.	Press push-buttons **1** and **2** down for 2 seconds to activate K/M RESET. Remove any possible power supply to the *Slave* (unplug all cables), before connecting it to the *Master.*
OSD menu is not at the proper position.	OSD menu has fixed resolution and its size varies as computer VGA resolution changes.	Use **F4** : More\Position to select UL or UR. OSD menu may appear near the middle of the screen when LL or LR is selected.
Computer can not use serial mouse.	Loose mouse adapter. Incorrect mouse adapter. Incorrect **PC** port connection.	Secure the mouse adapter to computer's COM port. Use only the mouse adapter comes with the unit. The mouse conversion is only effective at **PC** ports 7 and 8.
Can not select a computer connected to a slave.	Improper *Master* unit connection. Improper slave unit connection. Too many levels of slaves.	Only *Master* ports PC1~PC8 can be connected to slaves. Connect slave CONSOLE port to PC1~PC8 ports of the *Master.* Only one level of slave units is allowed. Pop up OSD again to check if *Master* recognizes the slave connection. Look for triangle mark and the number before it.
The DIGITUS® fails to function occasionally.	The system is not getting enough power	Make sure the external power supply is properly connected.

Limited Warranty

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From PS/2 keyboard	Map to Sun keyboard
right - **Ctrl** **1**	⊂⊃
right - **Ctrl** **2**	◑−
right - **Ctrl** **3**	◑+
right - **Ctrl** **4**	⏻ ☾ note
right - **Ctrl** **F1**	**Stop**
right - **Ctrl** **F2**	**Again**
right - **Ctrl** **F3**	**Props**
right - **Ctrl** **F4**	**Undo**
right - **Ctrl** **F5**	**Front**
right - **Ctrl** **F6**	**Copy**
right - **Ctrl** **F7**	**Open**
right - **Ctrl** **F8**	**Paste**
right - **Ctrl** **F9**	**Find**
right - **Ctrl** **F10**	**Cut**
right - **Ctrl** **H**	**Help**
right -	*right* - ♦
left -	*left* - ♦
	Compose
right - **Alt**	**Alt Graph**
left - **Alt**	**Alt**

From PS/2 keyboard	Map to Mac keyboard
right - **Ctrl** **4**	◁ power
Print Screen	**F13**
Scroll Lock	**F14**
Pause Break	**F15**
right - ⊞	*right* - ⌘
left – ⊞	*left* - ⌘
right - **Alt**	*right* - **Option**
left - **Alt**	*left* - **Option**